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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,315	10/29/2001	Robert V. Farese JR.	UCAL-105CIP2	1732

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EXAMINER

HUTSON, RICHARD G

ART UNIT	PAPER NUMBER
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1652

MAIL DATE	DELIVERY MODE
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01/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/040,315

Applicant(s)

FARESE ET AL.

Examiner

Richard G. Hutson

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15,17,18,21 and 68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15,17,18,21 and 68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2007 has been entered.

Claims 15, 17, 18, 21 and 68 are still at issue and are present for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, 17, 18, 21 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturley et al. (U.S. Patent Number 6,100,077).

The rejection was stated in the previous office action as it applied to previous claims 15, 17, 18, 21 and 68. In response to this rejection applicants have not amended the claims, but merely traverse the rejection as it applies to the rejected claims.

Applicants traverse the rejection on the basis that Sturley's discussion of detection of incorporation of [14C]-oleate into the sterol cholesterol is not incorporation of a detectably labeled fatty acyl CoA into a diacylglycerol, as [14C]-oleate is not a fatty acyl CoA; and cholesterol is not a diacylglycerol. Applicants further continue this line of reasoning by reciting a portion of the previously made rejection.

Applicants submit that, Sturley does not teach "measuring diacylglycerol activity" by "detecting incorporation of a detectably labeled fatty acyl CoA into a diacylglycerol acceptor" or "detecting incorporation of a fatty acyl CoA into a detectably labeled diacylglycerol acceptor and measuring using TLC." Applicants continue to submit that there is simply no teaching in Sturley that the polypeptide of SEQ ID NO: 1 is a DGAT. Applicants submit that at most, Sturley teaches that it is not an ACAT and Sturley speculates that the polypeptide of SEQ ID NO: 1 might possess DGAT activity; as the rationale for such speculation is a "predicted possession of a diacylglycerol/phorbol ester binding site." Applicants submit that Sturley, states that "ARGP1 likely catalyzes a reaction similar to ACAT"; and states that "Other esterification reactions which use fatty-acyl CoAs as substrates include retinol esterification, methyl ester formation, tripterpene esterification, monoacylglycerol transferase, and diacylglycerol transferase."

Applicants submit that thus, Sturley does not provide any hard evidence as to what the enzymatic activity of the polypeptide of SEQ ID NO:1 is and that without the knowledge provided in the instant application, namely that the polypeptide of SEQ ID NO:6 possesses DGAT activity, there would be no real reason for a person skilled in the art to consider that the polypeptide of SEQ ID NO:6 would carry out any particular one

of the five esterification reactions speculated to be possible activities for the polypeptide of SEQ ID NO:6. Applicants submit that as such, Sturley cannot render any of claims 15, 17, 18, 21, and 68 obvious.

Applicant's complete argument is acknowledged and has been carefully considered, however, is found nonpersuasive for the reasons previously made of record and repeated herein.

Applicants submission that Sturley does not teach the claimed methods on the basis that the detection of incorporation of [14C]-oleate into the sterol cholesterol is not incorporation of a detectably labeled fatty acyl CoA into a diacylglycerol, as [14C]-oleate is not a fatty acyl CoA; and cholesterol is not a diacylglycerol, is acknowledged and appreciated, however, applicant is reminded that the basis of the instant rejection is based upon obviousness, not anticipation. Applicant is reminded that applicant's previous amendment and argument resulted in the withdrawal of the rejection under 35 USC 102 and the application of this rejection under 35 USC 103.

As was previously stated one of ordinary skill in the art at the time of filing would have been motivated to identify a chemical compound which is capable of inhibiting diacylglycerol acyltransferase in a subject which comprises: (a) contacting a diacylglycerol acyltransferase identified and cloned by Sturley et al. as AGRP1 (SEQ ID NO: 1) with the chemical compound under conditions permitting binding between the diacylglycerol acyltransferase and the chemical compound; (b) detecting specific binding of the chemical compound to the diacylglycerol acyltransferase; and c) determining whether the chemical compound inhibits the activity of the diacylglycerol

acyltransferase so as to identify a chemical compound which is capable of inhibiting diacylglycerol acyltransferase in a subject, as a means of identifying a chemical compound which is a potential pharmaceutical composition for the treatment of atherosclerosis. The taught methods include the introduction of said candidate agent into a cell that includes said DGAT polypeptide. Such methods of measuring diacylglycerol activity, which themselves are obvious as a means of measuring diacylglycerol activity, comprise the detection of the incorporation of a detectably labeled fatty acyl CoA into a diacylglycerol acceptor measuring using TLC. The expectation of success is high based upon these same or similar methods are successfully taught by Sturley et al. using other acyl acceptors and Sturley et al. teach the diacylglycerol acyltransferase of SEQ ID NO: 1.

With respect to applicants submission that there is simply no teaching in Sturley that the polypeptide of SEQ ID NO: 1 is a DGAT, applicants are reminded that Sturley teaches that the cloned ARGP1 polypeptide of SEQ ID NO: 1 may possess DGAT activity based upon its predicted possession of a diacylglycerol/phorbol ester binding site. Additionally, Sturley, states that "ARGP1 likely catalyzes a reaction similar to ACAT". Even though Sturley states that "Other esterification reactions which use fatty-acyl CoAs as substrates include retinol esterification, methyl ester formation, tripterene esterification, monoacylglycerol transferase, and diacylglycerol transferase.", Sturley et al. certainly provides motivation and a focus on the diacylglycerol acyltransferase activity of the taught DGAT polypeptide, even without absolute "hard evidence" that the isolated polypeptide is a DGAT polypeptide.

As such claims 15, 17, 18, 21 and 68 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Sturley et al.

Conclusion

This is a continuation of applicant's earlier Application No. 10/040,315. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

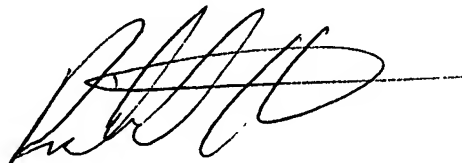
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G. Hutson whose telephone number is (571) 272-0930. The examiner can normally be reached on 7:30 am to 4:00 pm, M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (571) 272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'R. G. Hutson', with a horizontal line extending to the right.

Richard G Hutson, Ph.D.
Primary Examiner
Art Unit 1652

rg
1/25/2008